

FAQ's

Thermo Scientific™ Nunc™
High Density Cell Factory™ System.

Q: What is a Nunc High Density Cell Factory system?

A: The High Density Cell Factory system (HDCF) is a new Nunc Cell Factory system with 30% more surface area and the same footprint as a standard Cell Factory system (CF).

Q: How is the dimensional footprint maintained?

A: The height of the cell culture trays of the HDCF system has been reduced. For example, a HDCF13 system offers 3 more growth layers than a standard CF10 system. The increased surface area may allow 30% more cell yield* in the same footprint with minimal changes to your existing protocols.

Q: What sizes are available in the HDCF format?

A: The HDCF system is available in three configurations. Table below shows the equivalent standard CF system (footprint) and respective surface areas for comparison.

HDCF System		Standard CF Equivalent	
No. of Trays	Surface Area (cm ²)	No. of Trays	Surface Area (cm ²)
HDCF3	1,896	CF2	1,264
HDCF13	8,216	CF10	6,320
HDCF52	32,864	CF40	25,280

Q: Have there been any changes to the materials of construction as compared to a standard CF system?

A: No, the HDCF system is constructed of the same materials as a standard CF system.

Component	Material
Cell Culture Tray	Polystyrene
Port and Plug	White ABS
Port and Plug gasket	TPV
Vented Port Closure	HDPE

Q: Does the HDCF system require different handling?

A: The handling of a HDCF system is virtually identical to the handling of standard CF systems. The basic steps for filling and emptying are the same. Additional care is recommended to minimize foaming. Excessive foaming may cause a capillary effect (liquid may transfer to other layers) due to the reduced tray height of the HDCF system.

* The increase in yield may vary depending on the type of cells cultured.



Q: What is the recommended media volume for HDCF systems?

A: The recommended media volume is the same as for all Cell Factory systems.
150-200mL or 2.4-3.2mm per layer.

Q: What is the maximum volume per tray for HDCF system?

A: 220mL per tray.

Q: Will my standard CF accessories work with the HDCF system?

A: The HDCF system has the same port design and dimensions to support current manufacturing processes and protocols. The HDCF port is compatible with all existing standard CF accessories.

Q: Why does the HDCF port have one TPV gasket versus two in the standard CF system?

A: The HDCF tray height only allows enough space for one gasket.

Q: Are HDCF systems leak tested?

A: Yes, 100% of all HDCF and standard CF systems are leak-tested.

Q: What is the cell culture surface of a HDCF system?

A: The HDCF system has a Thermo Scientific™ Nunclon™ Delta certified cell culture surface. It is the same surface as the Thermo Scientific™ Nunc™ Dishes, Plates, Flasks and standard CF systems.

Q: With the additional layers of a HDCF system, how much heavier are they compared to standard CF system?

A: A HDCF13 filled with 200mL of media per tray is 0.905Kg (2lbs) heavier than a standard CF10. A HDCF52 filled with 200mL of media per tray is 3.82Kg (8.4lbs) heavier than a CF40.

Q: Are HDCF systems compatible with existing hand manipulators (HM)?

A: Yes, both the HDCF52 and HDCF13 are compatible with HM40/52 (176953) and HM10/13 (132752). The HM10/13 will require a silicone mat for use with a HDCF13. This will be made available upon request.

Q: Are HDCF systems compatible with all ACFM generations?

A: Yes, with minor modifications to the ACFM and standard CF10 rack (if applicable). Due to the lower height of the HDCF tray, new clamping cassettes will be required. These are available upon request with instructions on how to make the modification. Note: The new clamping cassettes are compatible with standard CF and HDCF systems.

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Australia +61 39757 4300 **Austria** +43 1 801 40 0 **Belgium** +32 53 73 42 41 **China** +800 810 5118 or +400 650 5118
France +33 2 2803 2180 **Germany national toll free** 0800 1 536 376 **Germany international** +49 6184 90 6000
India toll free 1800 22 8374 **India** +91 22 6716 2200 **Italy** +39 02 95059 552 **Japan** +81 3 5826 1616
Netherlands +31 76 579 55 55 **New Zealand** +64 9 980 6700 **Nordic/Baltic/CIS countries** +358 9 3291 0200
Russia +7 812 703 42 15 **Spain/Portugal** +34 93 223 09 18 **Switzerland** +41 44 454 12 22
UK/Ireland +44 870 609 9203 **USA/Canada** +1 866 984 3766 **Other Asian countries** +852 2885 4613
Countries not listed +49 6184 90 6000

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